

SERIAL NO.: 10/666,330

ART UNIT: 2851

REMARKS

The Examiner objected to the disclosure because of inconsistencies in the reference numerals and requested correction. Accordingly, two paragraphs have been amended to correct reference numerals so that they conform to the figures. The Examiner's attention to these details is appreciated.

The Examiner rejected Claims 1-33 under 35 U.S.C. 102(e) as anticipated by Mei et al. (U.S. Patent No. 6,509,955). The Examiner also referenced, but did not rely on, three additional publications believed to anticipate the invention (Klosner, U.S. Patent No. 6,238,852; Yanagihara et al., U.S. Patent No. 5,625,436; and Mei, U.S. Publication 2002/0097495).

The Mei Patent ('955) describes a lens system for maskless photolithography that utilizes pixel panels to generate pixel patterns. A gradient lens (GRIN) system positioned between the panels and the subject simultaneously directs the pixel patterns onto the subject. Fig. 10 illustrates an embodiment wherein a plurality of gradient lenses with respective object and image fields of view is aligned with a spatial light modulator (SLM). Accordingly, the Examiner has rejected the applicants' original Claim 1 as anticipated by this reference.

SERIAL NO.: 10/666,330

ART UNIT: 2851

The present invention, as described throughout the specification and figures, is an advance in the art based on a novel objective assembly particularly described and claimed in copending U.S. Serial No. 10/637,486. The inventive notion of this application lies in the realization that the same objective assembly can be used advantageously not only to image, but also to print, such as in photolithography and similar applications. Accordingly, Claim 1 has been amended to recite limitations specific to that objective assembly.

The application has also been amended to reference and claim the domestic priority of Ser. No. 10.637,486 as a CIP thereof. One of the inventors is common to both applications. Because the time limit to reference the parent case has passed, a petition under Rule 1.78(a)(3) is attached. The delay resulted from the fact that the two cases were filed by separate entities through two different attorneys and was unintentional.

The objective assembly of the present invention is a multi-axis two-dimensional array of individual objectives, preferably micro-objectives. The most notable novel feature of this array is that it is intended for use in a scanning microscope wherein an object is processed in a single pass. Accordingly, the array is designed so that the width of its rows (i.e., the number of columns in the direction transverse to the direction of the scan)

SERIAL NO.: 10/666,330

ART UNIT: 2851

is preferably sufficient to cover the width of the sample object. Uniquely to this microscope array, adjacent rows are offset with respect to each other in the direction transverse to the direction of scan, such that the fields of view of the various microscopes cover substantially different areas in the image plane during a scan. This is explained in detail throughout the specification, in particular with reference to Figs. 4, 5, 6 and 8.

As amended, Claim 1 recites substantially the following combination of limitations:

1. a plurality of objectives configured in a two-dimensional array of rows and columns of individual objectives;
2. an object for controllably illuminating the object fields of view of the objectives with light that varies spatially in one or more selected characteristics;
3. a scanning mechanism for varying the position of the array in relation to a device along a scan direction; and
4. a configuration wherein each of the rows in the array is transversely offset from an adjacent row with respect to the scan direction, so that their image fields of view define respective, substantially columnar, image areas during a scan.

These features are not present in any of the referenced patents, where the process of scanning, when described, is a conventional

SERIAL NO.: 10/666,330

ART UNIT: 2851

multi-step repositioning between adjacent areas of the sample object which does not require any particular configuration when multiple multi-axis lenses are used. Therefore, the applicants respectfully submit that Claim 1, as amended, recites limitations that are not disclosed in the Mei reference. Accordingly, this claim and those depending from it are not anticipated and are believed to be in allowable form.

Method Claim 13 has also been amended to recite essentially the same limitations in step form. Therefore, this claims, as amended, is also believed to recite allowable subject matter. Dependent Claims 12 and 29-32 have been amended to conform to the changes in the independent claims and to correct errors of dependency discovered during a review of all claims.

In view of the foregoing, the applicants believe that all pending claims, as amended, are now in allowable form and respectfully request reconsideration of the rejections.

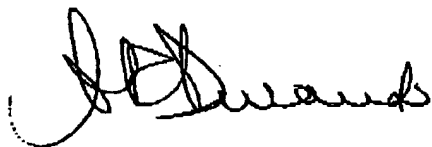
The applicants and their attorney undersigned thank the Examiner for his thorough examination and citation of relevant prior art, and for pointing out the informalities corrected in this response.

SERIAL NO.: 10/666,330

ART UNIT: 2851

A request for a three-month extension of time to respond to the office action is attached with authorization to charge the small-entity fee to our deposit account. Please charge this amount, and any other amount deemed to be due with this response, to our Deposit Account No. 17-0055.

Respectfully submitted,



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